WHAT IS CLAIMED IS:

1. An optical detecting sensor, comprising:

a sensor thin film transistor (TFT) generating optical current by incident light reflected from an object;

a storage capacitor storing charges of the optical current generated in the sensor thin film transistor; and

a switching TFT controlling a release of the stored charges of the storage capacitor to an external circuit for display of an image of the object, the switching TFT having dual-layered source and drain electrodes of a transparent conducting material and a metal material, an active layer and a gate electrode.

2. An optical detecting sensor according to claim 1, wherein the metal for the dual-layered drain and source electrodes is a substantially non-transparent metal material.

3. An optical detecting sensor according to claim 1, wherein the metal for the dual-layered drain and source electrodes is selected from a group consisting of tungsten, chrome and molybdenum.

4. An optical detecting sensor according to claim 1, wherein the transparent conducting material is indium tin oxide.

5. An optical detecting sensor according to claim 1, wherein the dual-layered source and drain electrodes each comprise a transparent conducting material layer residing on a metal material layer.

6. An optical detecting sensor according to claim 5, wherein the metal material is a substantially non-transparent metal material.

7. An optical detecting sensor according to claim 1, wherein said switching thin film transistor further comprises an ohmic contact layer on the active layer through which the dual- layered drain and source electrodes contact the active layer.

8. An optical detecting sensor according to claim 7, wherein the dual-layered source and drain electrodes each comprise a transparent conducting material layer residing on a metal material layer.

9. An optical detecting sensor according to claim 8, wherein the metal material is a substantially non-transparent metal material

10. An optical detecting sensor according to claim 8, the transparent conducting material layer and the metal material layer each contact the ohmic contact layer.

11. An optical detecting sensor according to claim 10, wherein the transparent conducting material layer also contacts the active layer.

12. An optical detecting sensor according to claim 11, wherein the transparent conducting material layer contacts the active layer at an edge thereof.

13. A thin film transistor (TFT) image sensor, comprising:

a sensor TFT having a gate electrode and spaced apart first and second electrodes;

a switching TFT comprising,

a gate electrode,

an insulating layer formed on the gate electrode,

a semiconductor layer formed on the insulating layer above the gate electrode,

spaced apart first and second electrodes formed on the semiconductor layer and defining a channel region therebetween in said semiconductor layer, and

a hole barrier layer between the semiconductor layer and at least one of the first and second electrodes; and

a storage capacitor having a first electrode and a second electrode, the second electrode of the storage capacitor being connected to the first electrode of the sensor TFT and the second electrode of the switching TFT.

14. A thin film transistor (TFT) formed on a substrate, comprising:

a gate electrode formed on the substrate;

an insulating layer formed on the gate electrode;

a semiconductor layer formed on the insulating layer above the gate electrode;

source and drain electrodes spaced apart and formed on the semiconductor layer and defining a channel region therebetween in said semiconductor layer; and

a hole barrier layer between the semiconductor layer and at least one of the source and drain electrodes.

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